Work Order ID 99578  April-11-13 1:56:52 PM				-	, by myster myster A	Page 1						
Revision ID:	D2012-107				Accept	*N900	040	100	<b>)*</b> s	Setup Sta	IV	S1* S2*
Start Date: 4 Required Date: 4 Reference:	4/09/13 4/11/13	Start Qty Req'd Qt		*10* *10*		Cust Item Customer:						
Approvals:	Process Pla	an:	Ø	Date://3-04-16	Tooling: _ SPC (Y/N):		)ate: )ate:		R	Run Sta	" <b>[\]</b>	R1* R2*
Sequence ID/ Work Center ID		Operation Description			Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Rev	vision Nbr	:									
D2012-107	Rev	v C	į									
*100 *100* Waterjet FLOW CNC Waterjet	t .		Memo	Dwg D2012-107	0.00				_10_	٥.		JmB-5-17
*110 *11 <b>0</b> *		QC2- Inspec	t parts off m	achine FAI/FAIB	0.00					0		<u> Jim 13-2-1</u>
Quality Control			Memo									
120 *120* QC Quality Control		QC8- Inspec	it parts - seco	and check	0.00	S.D			10			· -

d: Date:  IT/PROCESS  Water Jet Engineering Quality Quality Other Supplier  Verification QC Inspector
Water Jet Engineering Ouality Other Supplier
rod. Eng. Coor. Quality Other Supplier
tore/Packaging Other Supplier
Verification QC Inspector
Verification QC Inspector
i
Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled d Wrong ss/Surge Other
rect 'Missing ed d Wrong

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

<b>Work Order ID 99578</b> April-11-13 1:56:52 PM		*99578*									Page 2		
Item ID: Revision ID: Item Name:	D2012-107 Clevis			Accept	*N900	<b>040</b>	100	)* :	Setup	Start Stop		S1* S2*	-
Start Date: Required Date: Reference:	4/09/13 4/11/13	<b>Start Qty:</b> 10.00 <b>Req'd Qty:</b> 10.00	*10* *10*		Cust Item II Customer:	<b>D</b> :			,				·
Approvals:		nn:	Date:		Da	te:		J	Run	Start Stop	*NI *NI	R1* R2*	
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code	Accept Qty	Re Qt		Reject Number	Insp. Stamp	
*130* Brake NC Brake NC		NC BRAKE  Memo  Form on pres	s using DT9511 as per D	0.00 wg D2012-107				-10-			<u>.</u>		n/es
140 *140* QC Quality Control		QC5- Inspect part comple	oteness to step on W/O	0.00 SmP 0.00 BSJ	j			<u>10</u>					
150 *150* Packaging Packaging		Identify as per dwg & Sto	ock Location:	0.00. WAOOH		·		M.1	<i>O.</i>	13,	105/2	2 <i>[</i>	

WA004

											DQA:	Date	<u> </u>	
NCR:	Yes	/ No				WORK ORDER NON-C	O	VFORM	AANCE / UPDATE		·			
	, .			· · · · · · · · · · · · · · · · · · ·							QA Closed:	Date	)	
Work Orde	or:					DISPOSITION		AGAINST DEPARTMENT/PROCESS						
WORK OTTER	=1.					Rework	1		Skid-tube Crosstu	be	1	Water Jet	Engineering	
Part N	No.					Scrap			Machining Small F.	<u></u>	Pro	d. Eng. Coor.	Quality	
	-		•		·	Use-as-is	1	Therm	noforming Finishi	ng	Rec/Stor	e/Packaging	Other	
NCR I	No.					Work Order Update			Large Fab Composi	ite	j	Supplier _		
Root					Descri	ption of work order update	l l	Initial	Action		Sign &			
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector	
Doc/Data														
Equip/Tooling			]											
Operator														
Material														
Setup														
Óther														
Process				·										
Supplier									,					
Training														
Unapproved														
						F	AUL	T CATE	GORY	*		· · · · · · · · · · · · · · · · · · ·		
Landi	ng G	iear				General		-		_	٦	_		
	Ш	Bending				Bend		Grain			Ovalized	_	Pressure/Forced	
		Centre No	ot Conce	ntric to	o/s	BOM/Route	L	Hardwa	re	_	Over/Under	tolerance	Temperature/Cure	
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld	
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/Unclear	L	Part Lost/M	issing	Wrong Stock Pulled	
		Cuffs				Contamination		Mainte	enance		Part Moved			
		Heat Trea	it			Countersink		Mislabe	led		Positioned V	Vrong		
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	1		Power Loss/	Surge	Other	
		Ripples in	Bend			Drill Holes		Offset						

Out of Calibration

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H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

<b>Work Order ID 99578</b> April-11-13 1:56:52 PM			*99578*									Page 3
Item ID: Revision ID: Item Name:	D2012-107			Accept	*N900	<b>040</b>	100	)* s	-	Start Stop	*N.9	S1* S2*
Start Date: Required Date Reference:	4/09/13 : 4/11/13	Start Qty: 10.00 Req'd Qty: 10.00	*10* *10*		Cust Item 1 Customer:	D:						
Approvals:	Process Pla	an:	Date:	Tooling:	D:	ate:	<u>-</u>	F		Start	*NF	₹1*
	QC:		Date:	SPC (Y/N):	Da	ate:			\$	Stop	*NF	₹2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp
160		QC21- Final Inspection -	Work Order Release	0.00								
*160* QC Quality Control		Memo		0.00				<b>/</b> V	113	137	OS-23 M	VF 5.38
											(	3°

										DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-C	ON	NFOR!	MANCE / UP	DATE	QA Closed:	 Date:	
Work Orde					DISPOSITION				AGAINST DE		/PROCESS	
Part N					Rework Scrap		Skid-tube Crosstube Machining Small Fab			4	Water Jet d. Eng. Coor.	Engineering Quality
NCR N	NCR No.				Use-as-is Work Order Update		Thermoforming Finishing Composite			Rec/Sto	re/Packaging Supplier	Other
Root	-	T		Descri	ption of work order update		nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling												
Operator	_											
Material												
Setup Other	$\dashv$											· ‡
Process												
Supplier												
Training		]										
Unapproved	<b>T</b>					<u> </u>					<u> </u>	
					`F.	AUL	T CATE	GORY				
Landir	ng Gear				General		•		<b></b>	-	_	<b>¬</b>
	Bending				Bend	$\vdash$	Grain			Ovalized		Pressure/Forced
	Centre N	ot Conce	ntric to	D/S	BOM/Route	-	Hardwa		<u> </u>	Over/Under	<b>-</b>	Temperature/Cure
	Cracks				Broken/Damaged	-	i '	ion Incomplete		Part Incorre	<u> </u>	Weld
	Crushed/	/Crimped		<u> </u>	Burrs	-	ł	ions Incomplete	/Unclear	Part Lost/M		Wrong Stock Pulled
	Cuffs				Contamination	$\vdash$	Mainte		<u> </u>	Part Moved		
	Heat Tre			<u> </u>	Countersink	$\vdash$	Mislabe		-	Positioned \	_	
1	Inspection		Tube	<u> </u>	Cut Too Short		Misread	d		Power Loss,	'Surge	Other
	Ripples ii				Drill Holes	_	Offset					
ĺ	Torque V	Vaves in I	Extrusio	า	Drawing	1	Out of (	Calibration				

Out of Sequence

Outside Dimensions

Turning Sequence
Wave/Twist in Tube

Finish

Folio

April-11-13 1:56:52 PM

Work Order ID:

99578

Parent Item:

D2012-107

Parent Item Name:

Clevis

**Start Date:** 4/09/13

Required Date: 4/11/13

Start Qty: 10.00

Required Qty: 10.00

Comments:

IPP: D 01.11.08 Re-format, Drawing to Rev. CSM

IPP Rev:E Now on Waterjet 06-06-13 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA		Purchased	No			110	sf	366.9714	0.016	0.168421			72.00
304/316 Sheet .063									4. 10. **	O.a.	340 . HE TO 140 113		74/15/2
				Location		Loc Qty	<u>La</u>	oc Code					
				MAT020		366.9713688							
	•			122	2245	0.1713688							
				123	3136	140.8							
				124	1428	43			19ac	128_			
				124	1572	183							

204	D-4	•
DQA:	Date:	

NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE

OA Closed:

Date:

		· · · · · · · · · · · · · · · · · · ·							QA Closed.		the section of the se
				DISPOSITION				AGAINST DE	EPARTMENT	/PROCESS	
	· <del></del>			Rework	7 <b> </b>		Skid-tube	Crosstube	7	Water Jet	Engineering
				l —	1	Machining Small F			<b>⊣</b> ⊢		Quality
·					1 1	1 ~ <u> </u>		Finishing	Rec/Sto	re/Packaging	Other
				Work Order Update	1				1	Supplier	
			Descri	ption of work order update	1				1		
Date	Step	Qty		or Non-conformance	Chie	ef Eng	Desc	cription	Date	Verification	QC Inspector
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4					}						
_					Ì						
4											
4											
4					1						
-											
<u> </u>					ALUT	CATE	CORV			<u> </u>	<u> </u>
<u> </u>				<del> </del>	AULI	CATE	GORT		<del></del>		
7				7	$\Box$	Grain			Ovalized	Γ	Pressure/Forced
⊣ ~	at Canca	atric to 1	\s\ \-	4	<b>—</b>		re	<del> </del>		tolerance	Temperature/Cure
	or concei	itile to v	),,	<b>-</b>	$\vdash$			· }-	<b></b>   '	F-	Weld
-1	Crimned		-	<b>-</b>	—		•	/Unclear		<u>-</u>	Wrong Stock Pulled
-1	cimped.		<u> </u>	-			•	· · · · ·	<del>-</del> 4		
⊣	at		-	4	$\vdash$				<b>⊣</b>		•
-		Tube		4	<b></b> -				Power Loss,	/Surge	Other
<b></b>				Drill Holes	$\vdash$			_			0
<b>⊣</b> ``		xtrusio	,	╡	П	Out of 0	Calibration				
-				Finish	П	Out of S	Sequence				
·				Folio	П	Outside	Dimensions				
	Date  Gear  Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in Torque W Turning S	Date Step  Gear  Bending Centre Not Concer Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Ripples in Bend Torque Waves in E	Date Step Qty  Gear  Bending Centre Not Concentric to C Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend	Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence	Rework Scrap Use-as-is Work Order Update  Date Step Qty Description of work order update or Non-conformance  Fear General Bending Bending Centre Not Concentric to O/S Cracks Broken/Damaged Burrs Contamination Cuffs Countersink Inspection Strip in Tube Ripples in Bend Drawing Turning Sequence Times To Short Drawing Finish	Rework Scrap Use-as-is Work Order Update  Date Step Qty Description of work order update or Non-conformance  FAULT  Gear General  Bending Centre Not Concentric to O/S BOM/Route Cracks Broken/Damaged Crushed/Crimped. Burrs Cuffs Contamination Cuffs Contamination Cuffs Contamination Cuffs Contensink Cuffs Countersink Inspection Strip in Tube Cut Too Short Ripples in Bend Drill Holes Cuffunction Strip in Tube Cut Too Short Cut Too Short Cut Toque Waves in Extrusion Drawing Turning Sequence Finish	Rework Scrap Use-as-is Work Order Update Them    Date   Step   Qty   Description of work order update or Non-conformance   Chief Eng	Rework Scrap Use-as-is Work Order Update Userge Fab Userge	Rework Scrap Use-as-is Work Order Update Unitial Composite    Date   Step   Qty   Description of work order update or Non-conformance   Initial Chief Eng   Description	Rework Scrap Use-as-is Work Order Update Unitial Action Sign & Composite Date Step Qty or Non-conformance Chief Eng Description Date Step Qty or Non-conformance Chief Eng Description Date Date Step Qty or Non-conformance Chief Eng Description Date Date Date Date Date Date Date Date	Rework Scrap Use-as-is Work Order Update Use-as-is Work Order Update Date Step Qty Or Non-conformance Step Qty Or Non-conformance Date Step Qty Or Non-conformance Step Description Of Work Order Update Order Ord

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DART AEROSPACE LTD	Work Order: 9957	18
Description: Clevis	Part Number: D2012-	07
Inspection Dwg: D2012 Rev: C	Page 1 d	of 1

	FIRS	ST ARTICLE	INSPEC	TION CHI	ECKLIST		
		X First A	rticle [	Prot	otype		
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Coi	mments
0.380	+/-0.010	0.378	_		V	Venc	<u> </u>
1.325	+/-0.010	1.330	_		V	JE TOO	
2.649	+/-0.010	2.645"	-		v		
0.380	+/-0.010	0.376	_		v		
0.750	+/-0.010	6.756"	_		V		
R0.354	+/-0.010	0.354"	_		v		
Ø0.257	+0.006/-0.001	0.357"	-		V		
0.063	+/-0.010	0.060"	_		·V		
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							, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		7 [		Δ			
Measured by:	Jps	Audited b			Prototype A		N/A
Date:	13-5-17	Dat	e: \(\(\mathcal{D}\)\)	1/		Date:	N/A
Rev Date	Change				R	evised by	Approved

Rev	Date	Change	Revised by	Approved
Α	07.02.02	New Issue	KJ/JLM	

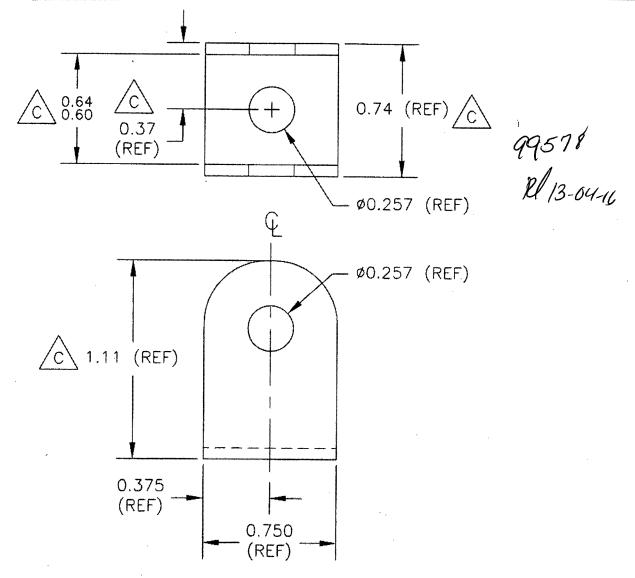




DESIGN BW		DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
CHEC	***	APPROVED	DRAWING NO. D2012-107	SHEET	REV.	-
DATE			TITLE	······································	SCA	LE
99.12.20			CLEVIS		2:1	
Δ		9/ 10 27	NEW ISSUE			*******

RELEASE)

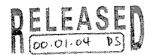
 99.12.20		CLEVIS	2:1	
Α	94.10.27	NEW ISSUE		
В	99.04.30	ADD FLAT PATTERN		
С	99.12.20	0.74 WAS 0.680	<del></del>	

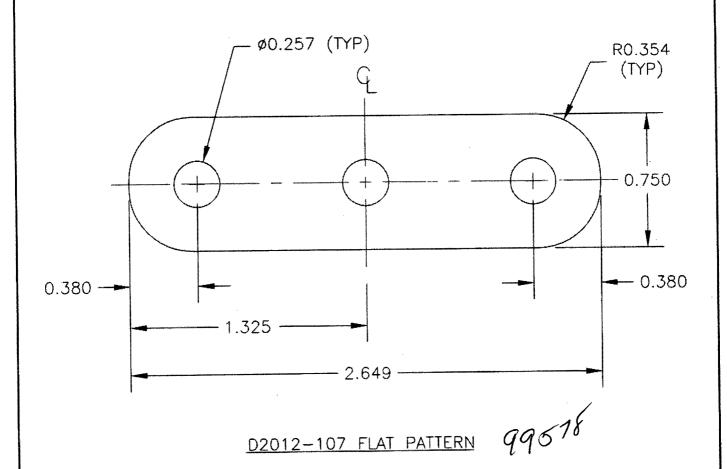


MATERIAL: AISI 304/316 SS 0.063 THICK USE 0.032 BEND RADIUS TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES



DESIGN BW	DRAWN BY	DART AERO HAWKESBURY, O	<b></b>
CHECKED.	APPROVED #	DRAWING NO. D2012-107	REV. C SHEET 2 OF 2
DATE.		TITLE	SCALE
99.12.20		CLEVIS	2:1





MATERIAL: AISI 304/316 SS 0.063 THICK TOLERANCES ARE DART QSI 018 UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES